

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte ULRICH BRUEGGEMANN

Appeal No. 2002-0355
Application No. 09/291,330

HEARD: March 19, 2002

Before ABRAMS, STAAB, and BAHR, Administrative Patent Judges.
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-9, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a capacitive angle sensor. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the appellant's Brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Bollhagen et al. (Bollhagen)	5,077,635	Dec. 31, 1991
German Patent Document (Wolfram) ¹	DE 43 22 750	Jan. 12, 1995

Claims 1-9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wolfram in view of Bollhagen.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the Answer (Paper No. 13) and the final rejection (Paper No. 8) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 12) and Reply Brief (Paper No. 15) for the appellant's arguments thereagainst.

¹The first named of the multiple inventors is Wolfram Kern, but the examiner has referred to the reference as "Wolfram," and for the sake of continuity we shall do the same. Our understanding of this reference was obtained from a PTO translation, a copy of which is enclosed.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

The rejection is under 35 U.S.C. § 103. The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

The appellant's invention is directed to a capacitive angle sensor of the type including a rotor fixedly connected for rotation with a sensor shaft and a stator fixed on a stator housing, with the rotor and stator lying in planes parallel to one another. These

devices are commonly used to measure the position of an object such as a throttle valve adjustor. As manifested in independent claim 1, the invention comprises a rotor fixedly connected to a sensor shaft and a stator fixed to a sensor housing, the rotor and the stator extending in parallel planes and sharing a common plane and including electrode structures which are for being capacitively coupled with one another, wherein at least one of the rotor and the stator include a ceramic plate having the electrode structure on its side facing away from the other of the rotor and stator, with the ceramic plate forming dielectric layer between the electrode structures of the rotor and stator.

It is the examiner's view that Wolfram discloses all of the claimed structure except for the plates being of ceramic material, but it would have been obvious to one of ordinary skill in the art to do so in view of the teaching of Bollhagen "in order to electrically isolate one from the other." Recognizing that the applied references do not teach placing the electrode structure on the side facing away from the other element, the examiner takes the position that "absent any criticality" this arrangement would have been obvious "using routine experimentation since the courts have held that there is no invention in shifting the position of a structure to a different position if the operation of the device would not be thereby modified. In re Japikse, 86 USPQ 70 (CCPA 1950)." See Paper No. 8, pages 3 and 4. We find this conclusion and the reasoning behind it to be untenable.

On page 2 of the appellant's specification it is stated that "[a]ccording to the principles of this invention, a parallel rotor and stator of a capacitive angle sensor are structured as ceramic plates having electrode structures on their sides facing away from each other, with the ceramic plates forming a dielectric." The advantage of this arrangement is no additional dielectric element is needed between the plates, as is the case in the applied prior art references, because the ceramic plates themselves perform this function. This, from our perspective, clearly establishes that the requirement that the electrode structure be on the side facing away from the other of the rotor or stator is "critical" to the invention, and thus proves the examiner's reasoning to be fatally defective at the outset.

The electrode structures in Wolfram are located between the disks "facing one another" (translation, page 4), and to achieve the required separation between the electrode structures a dielectric layer of PTFE lubricant is applied between them (translation, page 5). Likewise, the electrode structures on the rotor and stator of Bollhagen are on the facing sides and are separated by an air gap acting as a dielectric (column 5, lines 3-6). Thus, one of ordinary skill in the art would have been taught by both of the applied references to place the electrode structures on the sides of the rotor and stator facing one another, which is the opposite of that required by claim 1. This being the case, and considering it is well settled that the mere fact that the prior art structure could be

modified does not make such a modification obvious unless the prior art suggests the desirability of doing so,² we fail to perceive any teaching, suggestion or incentive in either reference which would have led one of ordinary skill in the art to place the electrode structures in the modified Wolfram arrangement on the sides of the rotor and stator which face away from one another, other than the hindsight afforded one who first viewed the appellant's disclosure. This, of course, is not a proper basis for a rejection under Section 103.³

It therefore is our conclusion that the combined teachings of the applied references fail to establish a prima facie case of obviousness with regard to the subject matter recited in claim 1. We thus will not sustain the rejection of claim 1 or, it follows, of claims 2-9, which depend from claim 1.

SUMMARY

²See, for example, In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

³In re Fritch, 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

The rejection is not sustained.

The decision of the examiner is reversed.

NEAL E. ABRAMS
Administrative Patent Judge

LAWRENCE J. STAAB
Administrative Patent Judge

JENNIFER D. BAHR
Administrative Patent Judge

)
)
)
)
)
) BOARD OF PATENT
) APPEALS AND
) INTERFERENCES
)
)
)
)
)
)

NEA/LBG

Appeal No. 2002-0355
Application No. 09/291,330

Page 8

F. PRINCE BUTLER
PO BOX 747
FALLS CHURCH, VA 22040-0747

RETURN TO LESLEY

APPEAL NO. 2002-0355 - JUDGE ABRAMS
APPLICATION NO. 09/291,330

APJ ABRAMS

APJ STAAB

APJ BAHR

DECISION: **REVERSED**

Prepared By: Lesley Gordon

DRAFT TYPED: 19 Nov 02

FINAL TYPED: